

An interview with Kenneth E. Hazledine (1)

KENNETH HAZLEDINE

An Interview Conducted by

Jane C. Hazledine

March 20, 1981

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NARRATOR DATA SHEET

Name of narrator: Kenneth E. Hazledine

Address: 164 Allendale Place, Terre Haute Phone: 812 - 299-1879

Birthdate: 12/18/1908 Birthplace: Terre Haute, IN

Length of residence in Terre Haute: Lifetime (72 yrs)

Education: Terre Haute schools--Normal School High School

University of Florida--Architecture, 1932.

Occupational history: Worked with his father, Edward T. Hazledine, in the E. T. Hazledine Co. after college, assuming the management in the 1950s. Now president and managing designer of Ken Hazledine Machine Co., Inc., manufacturing machines for the woodworking industry.

Special interests, activities, etc. \_\_\_\_\_

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Major subject(s) of interview: Early machine and smithing practice--

the function of the machine job shop.

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No. of tapes: 2 Length of interview: \_\_\_\_\_

Terms of legal agreement: \_\_\_\_\_

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Interviewing sessions:

<u>Date</u>	<u>Time</u>	<u>Location</u>	<u>Interviewer</u>
03/20/81		164 Allendale Place	Jane C. Hazledine
04/18/81		Terre Haute, IN 47802	

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KENNETH HAZLEDINE

Tape 1

March 20, 1981

At Hazledines' residence, 164 Allendale Place, Terre Haute, IN

INTERVIEWER: Jane C. Hazledine

TRANSCRIBER: Kathleen Skelly

For: Vigo County Oral History Program

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JH:

This is March 20, 1981. I'm Jane Hazledine. I'm interviewing Kenneth Hazledine, who just happens to be my husband.

Kenny, we're interested in you and your father. Your father came here as a young man from England and started a plant here in Terre Haute which you later operated.

Now, tell us. How old are you?

HAZLEDINE:

I'm 72.

JH:

Where were you born?

HAZLEDINE:

I was born in Terre Haute. I was born on South Center Street at 1019 just north of College Avenue. That building has since been torn down, and it's now a parking lot for the medical building [northeast corner of 6th Street and College Avenue] that is right opposite St. Anthony's Hospital.

JH:

What used to be St. Anthony Hospital.

HAZLEDINE:

What used to be.

JH:

Yes.

Tell us a little something about how . . . well about your father. Now, your father was born in England, isn't that correct?

HAZLEDINE:

That's right. He was born in England [on] December the 3rd, 1859.

JH:

Where in England?

HAZLEDINE:

He was born in Coalbrookdale, which is a small . . . you might say a village. But this was a coal mining, industrial area that had foundries, blacksmith shops. They had some spinning and weaving mills. It was the center of industrial England.

JH:

This is up near . . . in Shropshire . . .

HAZLEDINE: Right.

JH: . . . in middle western England.

HAZLEDINE: That's correct. It's on the Severn River.

JH: Yes.

HAZLEDINE: The Severn River is where my father swam and rowed in his later youth. Before he came over here, he rowed in what's called a shell like the college athletes row in -- a single scull or a double scull for two people. And he won quite a few medals in this sport. He loved it and in fact he liked all sports. He played whatever sports were around. I don't know whether rugby was played (chuckle) in those days, but he would have played it if he were there.

JH: Later on I believe he became quite a tennis player here in Terre Haute.

HAZLEDINE: Yes, but that was quite a bit later. In fact, I remember up at Lake Maxinkuckee where we had cottages that we lived in one and rented two or three others. And he built one of the first tennis courts back on the property. A clay court and this was when I was 8 or 10 years old, so that was a long time ago. And the women played tennis in a long dress that came almost to the ground. But it was a very sedate, nice game in those days. You weren't supposed to hit the ball too hard because the other person might not be able to get it back.

JH: (laughs)

But going back to England again . . . now your father had not much formal schooling, did he?

HAZLEDINE: No. He was one of six children -- three boys and three girls -- who was born in a little rowhouse called "Teakettle Row." This was a little two-story, single . . . you might call it a "shotgun" house. I mean it went right straight through the front door through the rooms out the back door, and it's still there. In fact you and I, you remember, visited Coalbrookdale and saw where my father was born and where he lived. And also where he worked.

He went to school until about the third grade

HAZLEDINE: and then he was apprenticed to a blacksmith. Now, the difference . . . we speak of a blacksmith as being an all-encompassing man who shoes horses and beats out iron and whatnot. But in England a horseshoer was called a farrier, and a blacksmith was not necessarily a horseshoer. My father never shod a horse. He didn't know how; it wasn't his training.

But I remember he did come from a family who was interested in education and knowledge, because some of his neighbors -- his mother's neighbors -- made the comment that oh, Mrs. Hazledine's always sitting there with a book in her fist. In other words, she was interested in reading. And Dad, while he only went to the third grade, was very well educated because he loved to read. He went through Shakespeare many times, as he was a constant student of whatever knowledge was running around loose. I remember hearing him discuss astronomy. He'd go out in the back yard and lay down and my aunt, particularly Aunt Jennie, would tell us about the various constellations. But as I say, he was interested in education.

JH: Well, then at the tender age of 8 or 9, apparently, he went to work. Where did he work?

HAZLEDINE: That's right. I don't know the exact name of the foundry that he worked in, but I don't think he worked in the Darby foundry. . . . That's a large cast-iron foundry that was established by Abraham Darby back in 17--, in the early 1700s. Well, I don't mean early 17--; it was around 1770. And this was the first iron smelting foundry to use coal for the heat to smelt iron ore.

JH: What would you have used otherwise?

HAZLEDINE: They used charcoal. And, of course, charcoal by this time even was becoming hard to get, because England after all is a relatively small island and there were a lot of people and you can't just burn wood forever. It doesn't grow that fast, particularly if you're trying to smelt iron with it. But there was an outcropping of good, mild coal. When I say "mild," it didn't have sulphur in it.

JH: This was important?

HAZLEDINE: This was important because the presence of

HAZLEDINE: sulphur would prevent them from . . . would not make good iron. But the iron that was smelted and the ore that they used . . . I don't know for sure where they got the ore, but /it/ made a very ductile cast iron. Normally, we think of cast iron as being brittle and it is. But the cast iron that they made at the Darby foundry was quite ductile. In fact, it was used to make the first iron bridge in the world over the Severn River in 1779.

JH: Now, this is very close to Coalbrookdale.

HAZLEDINE: Yes. This is a little village called Iron Bridge, appropriately, on the Severn River; and it runs . . . the town runs along the river and then the bridge goes across the Severn and somewhere. I don't know.

JH: All of this is now a public park and shrine now, isn't it?

HAZLEDINE: That's right. It was made into a national shrine -- the Coalbrookdale Museum. The iron bridge itself is no longer used for any traffic except for foot traffic, and it is the national shrine.

JH: It's maintained by the National Trust.

HAZLEDINE: By the National Trust. The Darby foundry itself aside from this is also a National Trust. And many of the original . . . well, the original cupola where they smelted the iron is still there. And, do you remember, we saw the little railroad track that they used to haul the small cars around through the foundry carrying the heavy items. From the dates that they said, this little railroad car and the tracks had been used for over 200 years during its lifetime.

JH: Well, not only that, I think it was used up until the '30s sometime.

HAZLEDINE: Yes. Yes. It was.

JH: The 1930s.

HAZLEDINE: And they had a more modern steam engine; I mean something that might have been built back in the 1900s.

JH: Yes.

HAZLEDINE: So that from 1776 to 1779 when the iron bridge was built up until the '30s, 1930, it was a going foundry.

JH: Now, given this background. . .

HAZLEDINE: Let me tell you this about this iron bridge.

JH: Excuse me. All right.

HAZLEDINE: . . . because it was fascinating to realize what these people were able to do.

This iron bridge is several hundred feet long. I mean it spans this river. It's an arched bridge. But the sections of the iron -- cast iron -- that make up the arch of the bridge . . . there were some seven sections to cross the bridge, and then the span itself was made up of several sections . . . but these were cast in the floor of the foundry. In other words, they dug up the floor, put the patterns down in the floor, and used the floor as what they call the coat of the mold.

JH: So, this was just the dirt. . .

HAZLEDINE: Oh, yes.

JH: . . . on the bottom of the . . . below the . . .

HAZLEDINE: Oh, yes. Yes. The floor of the foundry was all dirt. First floor of most foundries is dirt, because you spill hot iron on a concrete floor . . . well, in fact they didn't have concrete in those days as such. So anyway, there was a segment of the iron bridge standing up against the wall in the museum, the foundry. So you could see what the . . . but this thing weighed . . . it weighed a half a ton. This one piece. And they had to make that much molten iron and pour it . . . arrange to pour it into that mold that was in the floor. And then they'd make up . . . they made up . . . I don't know how many segments went in to make up the bridge. But it was fascinating to realize the engineerings things they had to do in those days with the crude equipment they had.

JH: Coming from this background, now, your father then learned his craft very well and . . . how did he ever happen to come to the United States?

HAZLEDINE: All right.

He had relatives . . . there were relatives that lived in Terre Haute that had come over earlier. And as the story goes, my father, when he was about 21, was upstairs when a friend of the family who had been to the United States was downstairs sitting in front of the fire talking with my grandfather, William Hazledine. And he told him . . . he said to him, he said, "Well, you should send your oldest son back with me to America because the opportunities that are existing over there for a well-trained mechanic, or smith, or whatever are endless."

Well, my father was not the oldest son; but he was sitting upstairs all ears, and he decided right then that whoever went he was going to go, too. So, as the story goes -- and I presume this is true -- pretty soon down the stairs came thump, thump, thump my father dragging his small trunk that he had with all his worldly possessions in it. And his father said, "Edward, what's this?" "Well, father, I'm going to go back to America with Mr. Fletcher."

JH: Well, then the older brother did not go?

HAZLEDINE: I don't think so. No, he didn't. He didn't come over.

Now, many of my father's sisters and brothers eventually got over to the United States or at least their descendants did.

JH: Their descendants did, yes.

HAZLEDINE: And they all seemed to gravitate towards Terre Haute. Terre Haute at that time was the center of transportation. It was on the Wabash, and there at that time was river transportation. And it was a center of coal mining. There were some . . . eventually there were some 25 or 30 shaft mines within running distance of Terre Haute. So that it was a real hub of industry.

JH: Well, it seemed to have attracted, too, many of the English people from those areas to Terre Haute. There were not only relatives of your father's but there were other English people here. This was quite . . .

HAZLEDINE: Oh, yes.

JH: . . . a good-sized English colony.

HAZLEDINE: Yes, that's true. It was. And we all know that those who were trained in those tough times . . . I mean there was a rough time in England; and if you were an apprentice boy, you learned your trade. There was no question about it. I mean, you didn't dillydally around and stop to go run and get a coke in the middle of everything. You worked hard and you became a skilled craftsman.

JH: Well not only that, there was very little opportunity for advancement beyond the very minimal level.

HAZLEDINE: Yes, that's true. That's true and that was the other reason that my father wanted to come to the United States because he had heard stories and he knew that he was . . . that he would have to be resigned to a menial position even though he was a craftsman. This would be a . . . he could never get beyond a certain point.

JH: When he came to the United States, did he come to Terre Haute first?

HAZLEDINE: Yes. He came back with Mr. Fletcher -- I think that's who it was. Anyway, he came back here, stayed a while and then went up to Pullman near Chicago, where the Pullman car shops were. And they needed skilled craftsmen; and when he went up there, it must have been in the wintertime or late fall. Anyway the weather was cold. And he got a job very readily, and I remember him telling about his clothes that he came over with. He had what . . . his work clothes were what he called fustian pants. They were . . .

JH: How do you spell that?

HAZLEDINE: F-u-s-t-i-a-n. It's a combination of linen and cotton, a very heavy, heavy coarse weave. I think similar to corduroy you would think of now. But it was hard and very sturdy. And in fact so sturdy that dad said that when it got a little dirty and it was real cold, it would literally stand alone.

HAZLEDINE: So anyway, you can imagine this young English-man walking across long Calumet Lake with the wind blowing and the snow blowing and all he had on was a pair of corduroy, cast iron pants. (both laugh)

He said the first thing he did after work was to go down -- at the suggestion of some of his friends, some of the people he worked with -- and bought a suit of long wool underwear.

Well, he didn't stay long at the Pullman. I don't know how many years or how long he stayed, but he came back to Terre Haute. Because after all, that area up there was not basically English; and he, you know, "birds of a feather flock together." So he came back to Terre Haute, and he got a job at a place called Eagle Iron Works.

JH: Where is Eagle Iron Works? Or was it, I should say.

HAZLEDINE: Eagle Iron Works was on South 1st Street at Walnut Street. It was on the west side of the street, and it was a pretty large sized factory. They made coal mining hoisting equipment, tipple equipment; they made mining cars; and they did general forge work. I'm not real sure how much machine . . . how many machines they actually had, but the lathes in those days were very minimal. I mean they . . . you could chuck a piece of iron in it and turn it; but in order to machine the iron off, the early lathes had a . . . you used a tool like a long axe-handle or . . . and fastened a tool in the end of it and rested this tool on a rest on the lathe and literally peeled off the iron like you would peel off a piece of wood in a wood lathe. And this . . . the pickhandle went back underneath your arm, and you rested your weight on the back end of this and worked this just like you would a wood lathe.

JH: So, it was very much a hand-held . . .

HAZLEDINE: Very crude and very much a hand-held thing until they developed a carriage which was fed by what they call a leadscrew, which was driven by part of the machinery. It would actually cause the tool to move lengthwise down the turning piece of metal.

JH: But this would be after mechanization?

HAZLEDINE: Yes, after a period . . .

JH. After electricity . . .

HAZLEDINE: No, No, no. They had turning lathes long before they had electricity here. The early . . . and I don't know just when the first electricity came in.

JH. Now, there wouldn't have been any in the Parker foundry Eagle Iron Works at that time.

HAZLEDINE: I don't think so. I don't think so.

JH: What did they use for power?

HAZLEDINE: Well, the power, of course, was made by steam engines. And this was a boiler and a steam engine that turned by wheel and belt-drive -- what we call a line shaft. This line shaft was a . . . oh, 2, 3, 4, 5 inches in diameter and went down the whole length of the shop, depending upon how long the shop was . . . I mean the machine that drove it, how big the shaft was. And from this shaft then came transverse belts that went out over each machine. So, obviously, they had to space . . . whatever machines were going to be driven by this had to be spaced at the right place, and the belts drove the lathes or the drill presses. They did have drill presses. But all the tools that they did not have . . . what we call high-speed tools . . . they did not have in those days what we call carbide tools, which are very, very hard. I can remember when the first tungsten carbide tools were brought into the shop. I mean, we bought one, paid \$5 for it. And this was back in 1930 or '33, and that was a lot of money. But it was hard, and it would turn things that the regular high-speed steel wouldn't turn.

JH. Well, now with all this mechanization seemingly then, what was the function of the smith?

HAZLEDINE: Well, the smith did . . . he had to just about start everything.

JH. What did the smith make?

HAZLEDINE: He made chisels; he made hammers; he dressed the tools that you used on the lathes to peel off the metal. And these had to be hand forged and

HAZLEDINE: then hand tempered. You had to get the iron or steel red hot in the forge and dip it in the water and then take it back out and let it, what they call, watch the color come out. I mean it would turn a straw color and then blue; and if you stopped it at the right point, why it was the right hardness.

JH            Maybe at this point we should make clear how a smith and the forge and the helper worked.

HAZLEDINE    All right. The smith . . . the two men worked with a big table that would be maybe three feet high, maybe four feet in diameter . . .

JH:            What's this made of?

HAZLEDINE:    It's made of . . . well, the ones I remember were made from an old boiler. And it sat up there and you'd fill it full of dirt and bricks. In the middle of it was a hearth where the fire was that was called a tuyere.

JH:            How do you spell "tuyere"?

HAZLEDINE:    T-u-i-re or t-u-y-re, I'm not real sure.

JH:            I see. Well, we can look that up.

HAZLEDINE:    "Tweer" is the way it's pronounced.

JH:            Yes.

HAZLEDINE:    But in the bottom of this tuyere were holes, and a pipe led from these holes over to a bellows, or blower, whatever. In the early days, it was a bellows, just like a fireplace hand blower. Only bigger. And this fed air to the under part of the coal fire that heated up the iron. Now, one of the helper's jobs was to pump that bellows. So, when the blacksmith put a big chunk of iron -- whatever he was working on -- in the fire, the helper was standing there pumping by hand (or with his foot, generally by hand) pulling a lever that pumped these bellows up and down like an organ bellows and dead air to the under side of the fire. And he had to know how hard to pump so that it gave the fire a steady blast rather than, you know, too much.

Anyway, when the iron was hot, the blacksmith would grab it with a pair of tongs and bring it out

HAZLEDINE: and lay it on an anvil. Now, of course, an anvil is, oh, perhaps two and a half feet long and five or six inches wide and stood up at maybe, 25 inches high -- fairly low so that the man didn't have to pick the work up too high.

JH: So, this was separate and away from . . . this was on another stand away from . . .

HAZLEDINE: It was right next to the forge, very convenient so that the blacksmith could pick the work out of the forge and lay it over on the anvil with only maybe one step.

In the meantime, the helper scurried over to the other side of the anvil and picked up a sledge. Now, the sledge would have a handle maybe three feet long, and it weighed all the way from 8 to 15 or 16 pounds. And the blacksmith would then decide where he wanted this . . . how he was going to draw this piece out -- flatten it or draw it out into a bar. And he would tap the red hot iron with his hammer (he had a small hammer). He would rap it and nod his head and get that hand hammer away in time so that the helper could strike that red hot iron right where the blacksmith had touched it with his hammer.

JH: So, he designated what was to be done and it was up to the helper to . . .

HAZLEDINE To hit it. Now, the blacksmith would nod his head. He never said a word. He originally didn't talk much because he generally had his mouth full of tobacco.

JH: (chuckles)

HAZLEDINE But it didn't make any difference. He would rap the iron with his hand hammer and nod his head, and the helper would strike right where he had touched it. And it was just touch, strike, touch, strike, nodding the head. And if he wanted it hit harder, he'd nod his head a little bit more. I remember father telling about one younger helper that the blacksmith finally stopped; and he said, "Joe," he said, "when I nod my head and hit it, you're supposed to keep on hitting it. What do you keep stopping for?"

"Well, sir," he said, "I thought you might

HAZLEDINE tell me to stop and I didn't want to miss it."

JH. (laughs)

Do you think there were a number of smiths  
who worked at the Parker foundry?

HAZLEDINE: There must have been a lot of them, because they had an awful lot of work to do. Everything that was made was put into a mine car whether it was . . . If the car was made out of wood, it had wheels, and these wheels were cast and Parker's had a foundry that cast iron. The shafts had to be forged out, to start with, into a long shaft and then turned in a lathe. And then they had bearings that the shaft rotated in. The wheels were solid on the shaft. They had bearings the wheels rotated in and these were cast iron. And then the rest of the cart of this mine coal cart would be made out of strap. I mean iron. I mean, when I say "strap iron" I mean, maybe, an inch thick and four inches wide.

JH. And this was something that was forged?

HAZLEDINE: And this was the thing that the blacksmith had to forge out. He had to heat it and bend it. He had to draw it down. He had to turn eyes in the end of it. He had to punch holes through it; they didn't drill holes in everything. They sometimes heated it red hot and punched the hole through it with a punch. This punch would be on the end of a stick or handle, and it was placed (the red hot iron on the anvil) . . . and they would place this punch where they wanted a hole, and the helper would strike the punch three or four licks and drive it halfway through the iron. And then they'd turn the iron over and punch out from the other side. So, he didn't necessarily have to punch it into a hole . . . through a hole in the anvil. But this was all very skillfully done, and a blacksmith . . . to watch a blacksmith and a helper work a piece of iron and make what they want to out of it, all of a sudden you realize that they're making a big pair of tongs or a hinge for a house or . . . everything that went into tying iron . . . I mean coal carts together. Wagons had a great many pieces of forged iron on them. And making up all these iron pieces was what they call "ironing off the wagon."

JH                    Oh! That's an expression that was used?

HAZLEDINE.        This was an expression that was used. And when the blacksmith or the horseshoer -- /the/ blacksmith out in the country somewhere who did this kind of work -- didn't have anything else to do, he would make parts for wagons. And he would have . . . hanging up in the back of his shop he would have all the iron parts for a wagon strung on a piece of wire and hanging up there. And there might be a lot of them. It, maybe, took two or three bundles to make one wagon because wherever you tied two pieces of wood together for a wagon, you had to have iron to hold it. You didn't drive nails in it because they wouldn't stand up at all. And, of course, in the early days the blacksmith also made nails.

JH:                Well, it sounds as if you didn't go to the hardware store to buy something, you went to the blacksmith to have him make it or buy it from him. Was that right?

HAZLEDINE.        That's right. There weren't many stores. In fact, somebody had to make the stuff to go in the stores. So the blacksmith made it. He sometimes supplied the hardware store with the things that you went there to buy.

JH:                Tell us something about Thatcher Parker.

HAZLEDINE.        Thatcher Parker was an entrepreneur of that age. He had started that business Eagle Iron Works, and he was a hard man to work for. He was not particularly well liked by the workers.

JH.                Why?

HAZLEDINE:        Well, he was just . . . he was not sympathetic to their situation. I remember they were paid in those days . . . there wasn't much money floating around, so the merchants and the businesses and the employers of the workers generally got together and established a system of script. So that if, say, my father worked for Thatcher Parker, he would build up a credit. And as he needed groceries or as he needed a suit of clothes or a pair of shoes or a new hat, he would go to Mr. Parker and say, "I need groceries." So Parker would give him a note that would tell the grocer that Parker would stand good for this amount of money.

JH: It was a sort of a check.

HAZLEDINE: Yes, it was a check, except that it was not cashable just anywhere.

JH: Oh, it had to go to said grocer?

HAZLEDINE: Yeah, he made out the script to a grocer and it was a selected grocer.

JH: So in a sense, the employee had to tell Mr. Parker exactly what he wanted it for?

HAZLEDINE: That's right.

JH: Very little privacy, seemingly.

HAZLEDINE: Oh, well, yeah. Of course, everybody knew what everybody was doing anyhow.

JH: (laughs)

HAZLEDINE: But I remember dad telling about one fellow who had to make a trip to Chicago. He had a death in the family or something, and he had to go up there. So he went to Mr. Parker, and he said, "Sir, I need to make a trip to Chicago. My brother died. I would need . . . I would like to have some of the money that I have coming to me," because he had an account. In other words, you weren't just paid off every week. When you needed money, you went and got whatever was necessary. And . . . so Mr. Parker dug up some cash money and when he gave it to him, he said, "Mr. Smith, I don't . . . I'm sorry that I have to do this, and I don't want you to make me have to do it again."

JH: (laughs)

How long hours did they work? Do you have any . . .

HAZLEDINE: Well, I think when dad first started to work, it was ten hours a day.

JH: Well, now this was in a period when there was no electricity in this plant. They had to depend on daylight, didn't they? Or did they have gas lights?

HAZLEDINE: They had gas. And then they had other means. . .

HAZLEDINE: They had torches, and they had open flames of one sort or another. Of course, all blacksmiths' shops were pretty dingy affairs anyhow. And you didn't really need an awful lot of light to beat on hot iron.

JH: Of course, there again this would provide heat, too, wouldn't it?

HAZLEDINE: Oh, yeah. There's nothing more cheery on a real cold day when the door's open and the snow's blowing in and you're standing up next to the forge and you bring out a hot piece of iron. Yeah, you stay warm.

JH: (laughs) It's very comforting.

HAZLEDINE: Incidentally, this reminds me of . . . Old Man Parker, as they called him, in his later years . . . well, dad was still working there, but he come down through the plant (and apparently there were a great many blacksmiths because he come down through the plant) and in order to sort of find out if the blacksmiths were working . . . if they were beating on iron, why the anvil would be warm. And if they weren't doing much work, why the anvil wouldn't be that warm. So, Mr. Parker would come down through there, and he would sort of go by, and as he'd go by he'd put his hands on top of the anvil at each of the pits as he went by there. Well, one day there were two of them and one of them . . . not my father because he was not this kind of a practical joker . . . Old Mr. Parker couldn't see very well, but these two young blacksmiths had heated up a flat piece of iron, pretty hot. I mean it was pretty hot and they laid it . . . when they saw Parker start down through the shop, before he could see what they were doing, why they just laid this flat piece of iron on top of the anvil. And as Parker came down through there and he laid his hand on top of this iron, it burned his hand pretty badly. This stopped him from coming down through the shop. Of course, he fired the two fellows. It didn't make any difference to them.

JH: (laughs)

HAZLEDINE: Probably found a job down the street somewhere.

JH: Do you have any idea of what kind of pay they

JH: received at that time? Now, this would be . . . well, he /your father/ came to this country in 1881, so this would be what? Maybe 1883 or '4, someplace in there?

HAZLEDINE Well, no. Of course, he started his business in 1887, so it would have been /188/5 or 6 or something like this. I'm not . . . I really don't know. I do know that in 1902 the rate of pay for 54 hours work was from \$10 to \$18.

JH: And 54 hours . . .

HAZLEDINE: Fifty-four hours in a week.

JH: Yes.

HAZLEDINE: That's six days of nine hours a day. Now, before that, they were working ten hours a day, six days a week. I don't think they worked on Sunday. They didn't get any overtime. They just got straight time, and they were expected to be there, and I don't know what they used for light. I do know that the power system was by steam engine up until motors became prevalent, and this would have been, oh, late . . . 1910 or '15 or somewhere along in there -- '20. I know that there was a steam engine in my father's shop for years.

JH: Do you have any information as to what Terre Haute was like when your father first came here?

HAZLEDINE: Well, I remember him saying that pigs were wallowing in Wabash Avenue. It was a dirt street, of course, and that 'way out there was a place called the Prairie House which . . .

JH: And that's the Terre Haute House.

HAZLEDINE: . . . and that was later rebuilt a couple of times and later became the Terre Haute House, yes. But that was 'way out in the country. And this was on the way . . . on the trail, of course, /U.S./ 40, route 40, from Indianapolis from Pittsburgh right straight on through. I mean this was the overland trail and that's why Terre Haute was built here.

JH: Was this called the National Road then, do you know?

HAZLEDINE: I think it was. I think it was.

JH: Well, we could find that out I expect.

Do you have any other memories of what he spoke of?

HAZLEDINE: Yes. I remember when they built the present Wabash River bridge. He had a great deal to do with the forgework and the work that went into building the iron in that bridge.

JH: Is that the current bridge?

HAZLEDINE: I think it is. I think it is because that's been there a long, long time. I mean it wasn't built in my time.

JH: Was this built at Parker's foundry?

HAZLEDINE: No. No. Now, you're . . . you see . . . no, no. This was after he began to work himself.

JH: All right.

When did he . . . you said that he built his own shop or organized his own shop in 1887.

HAZLEDINE: Well, first he had to meet my mother.

JH: All right. Tell us about that.

HAZLEDINE: Because father was quite musical, he loved to sing, as most Englishmen did, and the minute he was over here he hunted out the singing societies. And they had a lot of them because they didn't have the baseball games and the football games and the television to watch. They had to do something, and they generally entertained themselves with either drinking societies or singing societies. Sometimes they did both.

But mother was very musical also and played a piano and an organ, and there was a singing society called The Oratorio Society. And they got together and, obviously, worked on the oratorio. Mother played the piano and the organ for one of these societies and my father sang in one, and this is how they met.

JH I think that some of the old records that I've

JH seen showed that it was largely an English group that he belonged to. I think they were mostly his English friends and relatives that sang in this group.

So, they met at this Oratorio Society?

HAZLEDINE: That's right. Now, mother was, of course, born in Freedom, Indiana. Her father was a lumberman that had a big lumber mill in Memphis, Tennessee. But they were married in 1887, and he started up this little . . . he quit Parker and went and started his own little blacksmith shop at the other end of the block N.W corner of First and Poplar from Parker's foundry. And this annoyed old Thatcher Parker no end because he was just very . . . that this young upstart had the guts to start up a shop right in competition. Of course, it wasn't much competition except for the fact that dad was one of his best blacksmiths, if not the best one he had. Because dad was a good craftsman. And when he started up this little shop . . . of course, he took the bit in his teeth to start a thing like that. But in the meantime he had made some contacts and some friends, and the Terre Haute Brewing Company at that time was just beginning to build the brewery.

JH: Now, where was the brewery?

HAZLEDINE: Well, the brewery was down on 9th Street about where, well, where Chesty Food and where Hook's drug store southeast corner Poplar and 9th St. is.

JH: And where the A & P is.

HAZLEDINE A & P and Hook's drug store.

JH: Ninth and Poplar.

HAZLEDINE: Well, between 9th and Poplar and south from there. But there was an old Dutch brewmaster (I don't know his name) that was in charge of building the brewery. And dad went to see him to see if he couldn't, you know, get some work to make brackets and whatever it takes. It takes an awful lot of iron -- bent and formed and shaped -- to build a brewery or to build any kind of a mill building because they built the building out of wood and tied it together with iron.

HAZLEDINE      Well, this old brewmaster was a . . . he loved to eat hasenpfeffer which is, of course, rabbit. And he loved baked and broiled rabbit. Well, rabbit is a pretty dry, stringy meat.

JH:              The wild rabbit.

HAZLEDINE:      Wild rabbit. And they had . . . the Germans had a way of larding the meat by inserting a round, hollow needle that had a slit down one side of it. And this needle was probably as big around as a pencil and a little bit bigger, and it was sharp on one end. And you could take a long string of fat bacon and lay it down in this groove -- in this hollow split tube -- and stick it through the rabbit's flesh. And then when you pulled the needle out, you could leave that string of bacon fat through it. This larded the meat and, obviously, made it tender.

So, anyway, this old brewmaster said to my father, "Well," he said, "you say you're a blacksmith," he said, "Can you make spick needle." Well, dad happened to know that a spick needle was this larding needle that he had spoken of (and that's spelled s-p-i-c-k or s-p-i-k) and dad said, "Sure, I can make a spick needle." /The brewmaster replies,/ "You make me spick needle."

So dad went back to his little blacksmith shop, and he forged out a spick needle. Now, you realize that was made from . . . he took a solid chunk of iron and beat it out flat and then rolled it up. It's like making a soda straw with a slit down one side with a hammer and forge. Anyway when he took it back out there to this old Dutchman, he was just tickled to death. And he knew what craftsman meant, I mean what this craft meant. So dad got all the work he could do and this got him really started. Of course, after that there were other buildings, mill buildings . . .

JH:              What would be the substance of his work?

Was it just making tools and building materials?

HAZLEDINE.      Well, you realize that everything that had to be made out of iron, had to be made by a blacksmith.

END OF TAPE      (The remainder of this interview was made 3 weeks later.)

JH: Well, then you mean that everything -- every tool, every strap, every building material -- had to be made by a blacksmith?

HAZLEDINE: That's right. Anything that was made out of iron that was not poured into a mold -- which is casting, which dad had nothing really to do with as far as his business was concerned -- had to be made by a blacksmith. It was forged.

JH: Was this relative to building materials and everything else?

HAZLEDINE: Yes. When they built buildings in those days, they built them out of heavy timber. And the timber had to be tied together with straps hung on saddles, bolted together with bolts; and all of this stuff had to be made by a blacksmith. They did not have readymade bolts that you could go buy at a hardware store. Somebody had to make them. Somebody has to make them now but they're made by machine.

JH: O.K. Now, what were the early businesses that supported this man in his early efforts as a little job shop?

HAZLEDINE: Well, the main reasons that dad felt that he could make a go of a blacksmith shop was the fact that there were many industries that were settled up and down the Wabash Valley due to the fact that there was a fabulous underground water reservoir -- an aquifer of water that was pure and cold and apparently limitless. It was, you might say, parallel to the river, but it had nothing to do with the river. The river was sealed off from it and the level of the water in the river did not affect the level of the water of the water table, which was down 30, 40, 60 feet underground in a fine bed of gravel.

The distilleries . . . and there was one distillery (I just don't remember the name of it) that was right just about next to where the monument is down on Fairbanks Park, right on 1st Street, right on the bluff. They had a deep well there and it was a distillery. Then further on down we came to the old Commercial Distillery. This was later called Commercial Solvents. And then further on down from there was the Merchants Distillery. Later . . . further south of that the paper mill started up, just exactly when, I can't say.

JH: Well, in other words, these businesses were,

JH: say, from Farrington Street strewn down the bluff of the river down as low as maybe Voorhees.

HAZLEDINE: Oh, no. It went far north, too. Because there was on the north . . . well, right north of Wabash Avenue down on what we would call Water Street, which was the street between 1st Street and the river, was the old Vigo Ice Company. And then further north from that was the Home Packing ice plant and the Home Packing packing plant. And then a little later came the . . . a rolling mill. I mean a . . .

JH: A hominy mill?

HAZLEDINE: . . . a hominy mill. And this was a 6-story mill building that had hundreds of stands of cast iron rolls that ground corn into hominy meal. And further north from that, there was another ice plant it seems to me up in there that I don't just recall.

And the water company -- our city water company -- was up along the river bank, and they took their water from the river. However, now they take their water from this same underground water table that has attracted . . . had attracted all this industry.

JH: Is this water table still in existence?

HAZLEDINE: Oh, yes. Oh, yes.

JH: Viable?

HAZLEDINE: It doesn't seem to be depleted at all. It's a . . . I wouldn't say limitless supply of water, but it's certainly been there a long time. The paper mill, Weston Paper company south of town . . . back when I first started working in the shop, I heard it said that the paper mill pumps more water per day than the city of Terre Hautes uses, just for their own use of making and washing the paper pulp before it's rolled into paper.

JH: Going back to the hominy mills, these were one of the early industries. This was an early industry that supported your father's business to a substantial degree, isn't that right?

HAZLEDINE That's right.

JH: What was this?

HAZLEDINE: The hominy mill, as I said, ground corn into corn meal, and it eventually became what was known as hominy grits, which was a cereal that was used for . . . like mashed potatoes.

JH: Well, it's still used, isn't it?

HAZLEDINE: It's still used, yes. I remember my father mentioning the fact that for years he worked for the hominy mill and sharpened the rolls that ground the corn, and it wasn't until he went to Florida on vacation in his later life that he ever ate any hominy grits.

JH: (laughs)

HAZLEDINE: It was not particularly popular through this area. It was a . . . but it was used extensively in the south. It still is.

JH: It's a very common southern dish.

HAZLEDINE: Very common. Yes.

JH: But we had the corn.

HAZLEDINE: But we had the corn, yes.

The hominy mill particularly had, as I said, hundreds of stands of mill rolls. A mill roll is a cast iron, a hard cast iron, roll perhaps 10 inches in diameter and 36 to 48 inches long which had, we'll say, grooves scratched in it. Now, actually a machine did it. When two of these rolls were placed very close together and rotated at different speeds and corn fed in between them, it would actually rub the corn and grind it and drop it on through onto the other side. It would generally fall into another pair of rolls which were a little finer toothed. By the time it went through three pairs of rolls, it came out on the bottom side pretty much like flour. Now it can be . . . the shape and sharpness and size of the teeth in these cast iron rolls would determine the degree of fineness of the meal that came out the other side.

JH: Did this take the place of the old stone burrs that were used in the early mills?

HAZLEDINE: Yes. Most mills in the early pioneer days, the only way they had to grind the grain for the settler

HAZLEDINE: was by means of the old stone burrs which was a horizontal . . . two horizontal pieces of stone that were rotated against one another, and they ground up the corn. Now, when the . . . later on they developed these cast iron mill rolls they called them; and these became quite a factor in my father's business because he put in some special machinery to cut these grooves or scratches . . . these grooves in these hard cast iron rolls. He had a grinding machine that ground off what was left of the old grooves and then corrugated. We called it corrugating. We cut grooves in the rolls to the pattern that the miller wanted. And we had several hundred different patterns of teeth that could be cut into these rolls. You realize that not only did they grind corn, they ground oats and rye. And all of the grains that were made into flour went through a cast iron roll system. And they still do. This is still the way they grind and make flour.

JH: Do you have any idea why it left Terre Haute?

HAZLEDINE: Well, one thing the American Hominy Mill burned, and that's a good reason for leaving.

JH: (laughs)

HAZLEDINE: But they did not rebuild partly because the shipping of grain required tremendous quantities of grain, and the railroad began to take over the shipment. The predominant direction and flow of traffic was east and west, and the rivers don't run east and west. So, while the Wabash River furnished transportation north and south, it didn't carry the grain from the vast western grain fields east and west. So St. Louis and Kansas City and those big cities and Chicago that were right on the railroads were the ones that began to pick up the grinding of corn and a grinding of the grains. And while the roll business -- the grinding of mill rolls -- was still a pretty viable business up until, oh, 1940, '42, the machines that my father had put in were . . . they weren't so much antiquated as they were out of date. There were more modern machines that were developed that would corrugate rolls faster, and so that eventually we just priced outself out of the market. And then other things came along that were more important to do, so we just got out of the roll business.

JH: Well, now, did the distilleries also grind grain?

JH: What was the work that was done for the distilleries?

HAZLEDINE: Well, the distilleries had these same mill stands of cast iron rolls, because they had to grind the corn to make the mash that they made the whisky . . . that they made the alcohol from. And, also, there were . . . then this was quite interesting was the fact that all these little mills -- Cagle's mill and all the little mills around the country at Mansfield and Markle's mill and Paris (Illinois Cereal Mills in Paris), /and/ Kidder's, Sparks' -- all these flour mills and grinding mills brought their rolls in to our shop to have them corrugated. They didn't have to be done more than maybe once or twice a year, depending upon how much grain they ground. But in the old days they had to set up a mill to grind corn for the farmer within a horse-and-wagon trip per day. They couldn't afford to load up their wagon and drive two or three days over to a mill to get their corn ground, so essentially there were many little mills. There were mills down south of here. Now I don't recall their names, but I remember there were dozens and dozens of customers that brought their mill rolls in from these little mills that ground the local farmers' grain.

JH: And this was just simply for lack of transportation on the farmer's part?

HAZLEDINE: That's right. They didn't have trains; they didn't have trucks; they had a horse and wagon. And they could bring their grain in and have it ground and take it back home maybe the same day. And everything was geared to transportation.

JH: Well, how did the grain come into the distilleries then? Was this brought in by wagon, too, in the early days I presume?

HAZLEDINE: It was brought in by railroads. That was one of the reasons that they had the railroads come through here. In fact, this was part of the reason that they also come in by barge because there was river traffic on the river when father first went into business. And quite a bit of his business came from repair of the river boats. You see, he was right there on the bank of the river; and it's hard to understand why there's no traffic on the river now, except for the fact the river is silted up more than it was then and you can't get river transportation up this far north.

JH: Well going on then to other industries that provided work, you spoke of the paper mill. What did the paper mill have? And when was that established, do you know?

HAZLEDINE: I couldn't . . . I really couldn't tell you when the paper mill started up. It was an old plant when I became acquainted with it.

JH: Maybe we ought to stop here and identify when you went into the business.

HAZLEDINE: Well, I started in the business . . . of course, I worked there off and on when I was in high school and grade school, and that was back in the 1920s and then '25. And then after I got out of college, I went into the business seriously.

JH: And that was in 1932 or . . .

HAZLEDINE. That was 19/32-33. At the bottom of the Depression, by the way. And at that time there were four machinists, one blacksmith, one helper and two welders, aside from the bookkeeper and my father, who worked at the business.

There was always plenty of . . . well, there wasn't always plenty of work. During the Depression I remember them speaking of the fact that one week the least that any man ever got was nine hours' work. They all agreed at one point . . . when things got worse and worse and worse during the Depression, they came to my father and says, "Mr. Hazledine, don't lay anybody else off. We'll share the work, and if we only get a half a week each, we'll all still be here."

JH: Well, now actually you had graduated in architecture. How come you weren't practicing architecture?

HAZLEDINE. Well, the architectural business in 1933 . . . the only thing that was holding Miller and Yeager together was the state automobile insurance agency which they had, and their draftsmen were out selling automobile insurance. They sure weren't designing and building buildings because nobody was building anything.

JH: So, they didn't want you.

HAZLEDINE. So even though Mr. Miller had said . . . had told me, "You go get a degree in architecture and come back,

HAZLEDINE: and we'll have a place for you," well, when I got back after going through college, there was obviously no place for me in that. And I started in the machine business with my father, and I liked it so much that I stayed with it. However, I did bring into it the training I'd had in the architectural field; and we got into structural fabricating and, of course, the ornamental iron fit right in with this also.

JH: All right. Now, I would like at this point to go back a little and pick up some of these early industries which really encroached on your period, too, didn't they?

HAZLEDINE: Oh, yes.

JH: What were some of the rest of those businesses? And what did you do for them? Or what did your father do for them earlier, really?

HAZLEDINE: Well, of course, the early businesses we've mentioned -- the distilleries, the breweries, the ice plants, the paper mills, the . . .

JH: What'd they do for the brewery?

HAZLEDINE: The brewery?

JH: Um hm.

HAZLEDINE: Oh.

JH: Where was the brewery?

HAZLEDINE: Of course, the brewery, we helped build the brewery.

JH: Well, where was it?

HAZLEDINE: It was over at 9th and, oh, Poplar -- south of 9th and Poplar. And it grew considerably. I had nothing to do with the brewery or the distilleries until after Prohibition was run out.

JH: Well, that was about the time you came back here though.

HAZLEDINE: Yes, it was. Now, before that . . . of course, way before that when father first started up the business, they didn't have Prohibition, so that the brewery was going strong and all the distilleries

HAZLEDINE were making alcohol and eventually making whisky.

JH. Well, now was this roll grinding? What was the business?

HAZLEDINE: No. The brewery did not have any rolls as such, but they had bottling machines; they had all the rest of the power, the grinding, and conveyors and whatnot that go into handling and brewing of beer. And all of this had to be . . . had to have something to do with the blacksmith shop. However, the blacksmith shop very rapidly became a blacksmith-machine shop because while father was not a machinist as such, he hired good machinists and he had 15 or 20 men working for him in the turn of the century, 1900-1910. And they maintained the mechanical . . . the machinery that was in all of the businesses, industries, that were in town. One little business, I think I remember, was Milks' Emulsion Company. They were a nationally-known patent medicine. It was a very sweet-tasting emulsion of various and sundry oils, and it had some medicinal value, I presume. But it sold very well nationally. And it had . . . the building was . . . the plant was out on the, oh, I'd say about 13th and just north of the railroad.

JH: Which . . . now where do you mean? On Chestnut maybe?

HAZLEDINE: Yes, about 13th and Chestnut, somewhere along in there /14th Street and Pennsylvania Railroad/. And they had . . . they had for one thing that we worked on a great deal, they had an elevator. They had to hoist all their oils and fats and stuff that they put in this emulsion . . . had to haul it up to the top floor. And they had an elevator that was run by water pressure. And it was an antiquated . . . it was really an antiquated old relic. And due to the fact that the business began going down -- slackening off and going downhill -- they didn't put in any modern equipment. They just finally ran out of steam, oh, along about 1935 or '40, somewhere along in there. So consequently, we did quite a bit of work on that old elevator that certainly should have been thrown out long ago. The main thing we worked on was the piston and the cylinder and the pulleys and the rope system that caused the elevator to go up and down.

JH: Now, was this a manual system?

HAZLEDINE: No, no. They turned on the water pressure, and the water pressure went into this big piston and the cylinder and pushed the piston apart. And when it pushed it apart it spread two pulleys and the rope wrapped around these two pulleys, and it pulled the elevator up to the top.

JH So it was hydraulic.

HAZLEDINE: It was a hydraulic elevator. Right.

JH. (laughs)

HAZLEDINE: And that was down in the basement and it was . . . the piston was probably 18 inches in diameter, and, as I say, it was pretty crude. It worked, but it required a lot of mechanical effort to keep it going.

JH There's just one item I think should belong in this discussion of Milks' Emulsion, the fact that the family's name was Milks seemed to assist in the sale of this product, which was a patent medicine and had nothing to do with milks at all. These people's name was Milks.

HAZLEDINE That's right. And that was the thing. I think that the similarity . . . because it was a white emulsion, it looked like it might have milk in it. And it tasted sweet -- sort of pepperminty -- and it certainly made you feel good to take it.

JH: (laughs)

All right. What were some of the other businesses that you worked at?

HAZLEDINE: Well, of course, the glass plants. The Root Glass plant was going in those days. The old Turner Glass plant was going.

JH Where was the Turner Glass plant?

HAZLEDINE: The Turner Glass plant was on North 25th Street just past the . . . well, just about Eagle Street.

JH And where was the Root Glass plant?

HAZLEDINE: And Root Glass, of course, was down on South 3rd Street, about Voorhees.

JH: Which is still a glass plant.

HAZLEDINE Which is still a glass plant. It's now called Midland Glass. And that was . . . the Root Glass plant, of course, was the site of or the plant where the original coke bottle, Coca Cola bottle, was developed. There was a tremendous amount of mechanical work /that/ had to be done down there. However, they had their own machine shop and a good one, because they made all their own dies to blow the bottles in. And consequently . . . besides that, a bottle-blowing machine is so complicated that it requires several mechanics in constant attention to really see that it's running properly. And if something happens, they don't have time to call or to run after somebody to come down and fix it. The same way with the brewery. The brewery had 7 or 8 or 10 machinists of their own who did the work.

JH: What did you do for the Home Packing Company?  
What did the Home Packing Company pack?

HAZLEDINE. The Home Packing Company packed pork, mostly ham and related items. They also ground up everything that they couldn't package into food. They ground it up into fertilizer or bone meal or chicken food or something. And these big grinder cookers were big, rugged affairs; and when they'd grind up all that bone, it was pretty rough on the equipment. Eventually, it would wear to the point where it had to be fixed. But there were many pumps and mechanical devices to move machinery to move the product. Conveyors all had bearings and shafts that wear out, so that our business was to replace the worn out equipment.

JH I believe you made mention at one time about the odors emanating from the heating of these gears and devices.

HAZLEDINE: Oh, boy! They had one particular what they call an extruder that pushed the ground-up bone and bone meal and refuse and offal that had been made into fertilizer. It pushed it out and extruded . . . I mean, pressed all the water out of it, and it came out a dry product. Well, this was a rotating screw that was put on a shaft in segments. When those segments wore out, then they had to take the whole shaft out and take those segments off and replace them with new ones. Well, the only way to get them off was to heat them. Well, with all those

HAZLEDINE    little cracks where they were put in in segments, all those cracks got full of bone meal; and then you'd go in there with a torch and heat that thing up red hot to get it off. I'm telling you the stench was something else!

JH:            Did you have any difficulty getting men to work under these circumstances?

HAZLEDINE:    No. Not for that. But we did have difficulty . . . there was another plant called the abattoir. And this was across the river and north. This is where they hauled away the dead animals, and they literally ground them up . . . you might say, ground them up and cooked them totally and made fertilizer out of them. And we did work for the abattoir early in the business. I didn't because it was before my time. And it finally got to where they couldn't get anybody to go up there to work without paying time-and-a-half. And then it got to be double-time. Then finally we just said we're not going to do it any more because it was (laughs) . . . The fella that we'd pay double-time would come back into the shop and he'd stink worse than [laughs] . . . So, it was just . . . it finally got to where it was not practical. We couldn't get anybody to do the work.

JH:            Well, now, what happened to the abattoir? What happens to dead animals now?

HAZLEDINE:    Well, the abattoir went out of business, and they haul all the dead animals for this area over into near Indianapolis. They'll come over and pick 'em up.

JH:            So, that place is out of business?

HAZLEDINE:    Yes.

JH:            What did you do for the water works?

HAZLEDINE:    The water works . . . of course, all businesses had pumps and shafting and . . . Transmission of power in the old days was done from a central source, a big steam engine which drove a long line shaft, we call it. And off of this line shaft came pulleys and belts over to the machinery that they had to run, down through the plant. So, you might have several hundred feet of rotating line shaft with pulleys running off of it over to the separate machinery. Well,

HAZLEDINE: all of these things are bearings and brackets and things that wear out, so we worked on this sort of thing.

Then as the electric motors came into being and . . . by the way, the first power plant -- electric power plant -- was on 1st Street or on Water Street right on the river's edge just north of the river bridge. And it . . .

JH: You mean the power plant for the city?

HAZLEDINE: For the city. This was . . . it's not in use any more. All the machinery was moved out of it. I think it's even been torn down, but this was a generating plant, steam generating plant. They burnt coal.

Then, of course, the coal mines were a tremendous source of business; and there were many, many shaft mines. I want to say 20 or 25 shaft mines within reasonable distance of Terre Haute that would bring their work in or we would go out and do the work out there. Mostly, the coal mines brought their work in. They had their own mechanics take it off and then sent the work in to the shops to be repaired.

JH: I believe you said at one time there was quite a business in sharpening plowshares for the farmers?

HAZLEDINE Yes, this is strictly a blacksmith's business; and I became acquainted with it after . . . frankly, after my father died because . . . No, there was quite a bit of plowshare work before that. But most of that, at that time, was with a cast iron share. The whole share had to be ground. But a plow drawn by a horse has to have as little resistance going through the soil as you can get because you only got so much horse. And they had steel plowshares that required hand forging the edge. You beat out the edge thin so it'll be sharp. And this had to be done several times during the plowing of a farmer's farm. And later on when the tractors became more prevalent and the farmers did away with the horse, they developed . . . manufacturers developed a replaceable edge that took more power, but tractors had more power. And it was cheaper, and the farmer didn't have to stop to take the plowshare off and take it into town. This was the big advantage there. So, there for a period of 10 or 15 years we did a lot of plowshare dressing, we called it, and that was strictly a forging job.

JH: I'd like to hear you say a little something about the personnel practices and the pay scales of those earlier days. Do you have any information on this?

HAZLEDINE: The only information I have really starts about 1902. I have some of the old timebooks that were kept at the shop. But in 1902 they worked 54 hours a week. That would be 9 hours a day, 6 days a week. And they got from \$10 to \$18 for that effort.

JH: For the whole week.

HAZLEDINE: For the whole week, yes.

JH: Wow!

HAZLEDINE: Then in 1904 it went up a little.

JH: How much? (laughs)

HAZLEDINE: Well, it . . . I got down here (chuckling) \$10 to \$20. Not very much.

We didn't have inflation in those days. In other words, things stayed about the same from year to year; and if the wages went up, they might go up 2-1/2 cents an hour. I remember when I was in school -- in grade school -- I worked down there in the summertime, sometimes, or after school, and I made 10 cents an hour. Of course, I was just a flunkie at that time.

Then in 1935 when I first really was working there, we were working 50 hours a week and were making \$20 to \$35 a week for that 50 hours. Eighty-five . . . seventy-five, 50, 60, 75 cents an hour was the rate of pay for helpers -- and a little bit better. And then the machinists were making 75 cents an hour.

JH. Do you remember how much you made when we were first married?

HAZLEDINE Thirty-five dollars a week.

JH And that was 1935.

HAZLEDINE: Right.

JH: Was this a union scale type situation?

HAZLEDINE: Yes, we always . . . there was always a union . . . We always had a union shop. This was not so much because the men who worked there felt they needed help in negotiating because dad was never a difficult employer. But we did work for the brewery and, of course, the brewery was a hundred per cent union. We did work for the coal mines; and if you didn't have a union shop, you didn't get any coal mine work. So that was the main reason, I think, that they got started as a union shop.

I remember one of our men, Roy Englehardt, was quite active in the union. And when they finally got . . . when we finally got down to working eight hours a day and were making a dollar an hour, he said, "Kenny, I just sort of don't know where to go now. I've lost my drive. All these years we've been driving towards an 8-hour day and a dollar an hour and now that we've got it, I've sort of lost interest in the union." (laughs)

JH: When did you go into the ornamental iron business? Was your father . . . was he in this business earlier?

HAZLEDINE: Well, dad, of course, was always an artistic person, and he did ornamental iron work in England. I know he was . . . had made quite a few items of ornamental work when he was still in England, because he was good at it and his work was in demand. He didn't work for himself, he worked for a company, but still the customers would come and ask that young Ed Hazledine be the one to make their fancy wrought iron.

He didn't go into wrought iron, really, as a business. He did it as it came along. In other words, if somebody came to him and said, "I'd like to have a wrought iron fence made," why he'd make it. But he did such a general blacksmith business that he never lacked for work. And . . .

JH But he did do some early work here . . .

HAZLEDINE: Yes, he did.

JH: . . . in Terre Haute.

HAZLEDINE Now, as a big job came along he saw the opportunity; and when they asked for . . . well, he built the gates at Highland Iron cemetery.

JH: Highland Lawn.

HAZLEDINE: Highland Lawn, I'm sorry. Highland Lawn cemetery. And he built . . . there's a short section of wrought iron fence on either side of the gate that he made.

JH: Is this what still exists?

HAZLEDINE: And that's still there, and it still is a beautiful example of good craftsmanship. There are several other things around town. I just . . .

JH: You said at one time that he had done some work on the courthouse.

HAZLEDINE: I'm not too sure about that. I know he didn't do all that fancy iron work that's up on the very top of the courthouse, but I know he did some . . . he did a lot of work on the bridge, the river bridge.

JH: The Wabash River bridge?

HAZLEDINE: Wabash River bridge.

JH: The current bridge that's there?

HAZLEDINE: Yes, either repair work or original work. Now he . . .

JH: Structural . . .

HAZLEDINE: Yes. He didn't . . . as far as I can see he did not make the ornamental rails that are on the side. There are so many buildings in town that have examples of the work that my father did. They're being torn down now, but . . . and I have no real record of what they are, where they are, except that if there was blacksmith work to be done in a building, he had a more likely a good chance of having done it because . . . There were other blacksmiths; there were many.

JH: But now he personally did quite a bit of wrought iron work for his own pleasure, didn't he?

HAZLEDINE.            Oh, yes!

JH.                   Andirons?

HAZLEDINE.           He made andirons for his friends and hand rails for his friends.

JH:                   Chandeliers?

HAZLEDINE:           . . . and made chandeliers. He made, oh, curtain rods and the sort of thing, you know. You can't make any money at it but it's a pleasure to do it. And he got a real pleasure out of making . . . out of pounding iron into a pleasing shape.

JH:                   He did quite a bit with some ornamental roses.

HAZLEDINE:           Yes. Now, that's a whole other subject itself. It's not the sort of a thing that an ordinary blacksmith or even some extraordinary blacksmith would engage in. But he was a rose fancier, and he liked to grow fancy roses. He decided at one point that he thought he could make a wrought iron rose, and he made many flowers out of wrought iron. And this was a real example of craftsmanship, because by the time you get down to pounding out those little petals all out of one piece of metal without burning the edges off, this is . . . it's a subject of a whole evening's discussion (laughing) in itself.

JH:                   Well, now you did, however, yourself go on into wrought iron when you went into the business.

HAZLEDINE:           Yes.

JH:                   In a serious way.

HAZLEDINE.           When I, of course, came out of school as an architect and then things began to get better and the business grew, we thought, well, it would be a good idea to go ahead and try to build up wrought iron rails and columns. People were beginning to use this sort of thing on their houses so we developed quite a line and a catalog, and we took on a line of cast iron parts to incorporate in our wrought iron columns and rails.

JH:                   Yes, but there's quite a bit of difference between cast iron and wrought iron.

HAZLEDINE: Oh, yes. But you understand that the ornamentation of wrought iron can be augmented by the use of cast iron patterns. And this, of course, is exemplified in New Orleans where most of the famous patterns of castings originated. Well, they didn't originate there; they originated in Massachusetts and were brought down to New Orleans. But New Orleans used more of it than anybody else.

JH: I believe you designed and created the title on the Woman's Department Club.

HAZLEDINE: That's right. That was one of the first pretty good-sized jobs I did, and I did it for your mother who was president of the Department Club, and I think that's where I first began to become acquainted with you. At least I knew who you were by this time! (laughs)

JH: She was interested in the Department Club, of course, and she felt that a wrought iron sign over the doorway would enhance the building. And it still stands.

HAZLEDINE: That's right. It's still there, the name Women's Department Club in wrought iron and in a wrought iron design that's hung between the columns on the front of the building.

Also, I built the gates that are down on the . . . and the little . . . I don't mean the gates. I think they're rails that come up from the gates to the lawn level.

JH: At the Department Club.

HAZLEDINE: At the Department Club.

JH: Would you like to mention what wrought iron really is? What distinguishes wrought iron from any other kind of iron?

HAZLEDINE: Well, of course, strangely the word wrought iron means two things. It means either hand wrought by heating it and hammering it out with a hammer . . . Also the word applied to a type of iron that is an impure form of iron, and it is gathered from the retort where the iron ore is melted and puddled. And when it's brought out, it contains a lot of slag and impurities. But then when that . . .

TAPE 2

HAZLEDINE. This protects the layers of iron from the penetration of corrosion. It creates a laminated condition. It's very delicate, very difficult to see, but it does prevent the corrosion of the iron as against steel.

JH Well, now is this then an advantage because it won't rust? Is that the way it is? And why doesn't it rust?

HAZLEDINE: Well, it doesn't rust because of this silicone and slag that is rolled into the mass of iron. And apparently, this keeps the rust from progressing, from penetrating in . . .

JH: So it gets to a barrier and then quits? Is that the idea?

HAZLEDINE: Apparently, this is the way it works.

JH. All right. Is this available now?

HAZLEDINE. No, it's not available now in that form. Wrought iron is available, but it's made specially and is more expensive than steel, because steel is rolled in such tremendous quantities and is so much stronger than wrought iron that they don't really use wrought iron like they used to. Now if they want to protect something from corrosion, they make it out of stainless. But the wrought iron itself, being laminated . . . I don't mean to say that you can see these sandwiches of iron and slag. They're very microscopic but it was tougher than steel. It would stand much more bending than the stronger steel.

JH: Where is this available? Or, was?

HAZLEDINE: Well, at the time that I started reading seriously, trying to make wrought iron rails and items, I couldn't buy wrought iron as a bar stock. So I wrote to the American Iron & Steel Institute and asked them where I could buy it. They wrote back and said that right in Terre Haute in my hometown there was the only rolling mill that still rolled wrought iron and that was the American Iron & Steel.

JH                   Highland.

HAZLEDINE:       The Highland Iron & Steel, which was out, oh, way out on . . . north of . . . east of Fruitridge Avenue . . . Or no, out in the northeast end of town.

JH.                Is that still there?

HAZLEDINE:       No, it's long since torn down.

JH:                What happened?

HAZLEDINE:       Well, it just went out of business. It was not a modern plant.

JH:                A small company.

HAZLEDINE        It was just a small company, and during the first world war they rolled a lot of steel and a lot of iron and shipped a lot of it to Japan. So I went out to the Highland Iron & Steel, and I talked to them about wrought iron. Well, they could supply me with some of it, but they suggested why don't I bring in my own heavy bar stock and they'd roll it out into the sizes I needed. So I canvassed all of the junk yards that I could find, and I'd file off a piece of shafting. I could tell by looking at it if it was wrought iron because you can detect that slight lamination, that slight grain that it has. All these line shafts that had at one time driven all this machinery from a central steam engine, all these line shafts were wrought iron because that's all they had in those days. So, when these were all torn out and more modern machinery put in, the junk yards had lots of it, tons of it. So, I bought I don't know how many tons of this stuff eventually, took it back down to the shop, cut it up into the lengths that was required by the rolling mill, and hauled it out to the rolling mill. And they rolled it into half-inch square bars, half-inch by inch-and-a-half, a half-inch by two, an inch-and-a-quarter square bars -- all to make wrought iron rail.

JH:               So, many of the old wrought iron railings that you made here in Terre Haute were once line shafts in a company.

HAZLEDINE       That's right. (both laugh)

Then, of course, that ran out. I mean, I

HAZLEDINE: bought up all the line shafts that were there, and we started making wrought iron out of . . . I mean we've been making rails, hand rails, out of just ordinary steel. There's nothing wrong with it if it was painted properly. The thing about the wrought iron was that it, frankly, didn't have to be painted very good. There's one prime example of how well it lasts. When we moved over onto South 5th Street, my father put a fence around the back yard, and he used a chain that he had gotten out of some mine shaft somewhere. This chain was probably an inch-and-a-half in diameter, made out of maybe half-inch round bars of length, and it was great between concrete posts. Well, around the top of a concrete post he put a strap, and he had two hooks forged on there to hang this chain on, a hook on each side. The hooks and the straps were made out of steel. All this chain was made out of wrought iron. And when he came to the end of the chain, then he had to splice that together with another length of chain and that length was made out of steel.

Well, when we left that house . . . sold the house and left it some 20-25 years later, the lengths and the straps around the top of the post -- the extra lengths he'd put in there out of steel -- were practically rusted away, and the original wrought iron chain looked like it'd been put up there yesterday. It just had not corroded. So, it's a peculiar situation that steel doesn't . . . or iron does not rust with all its impurities in it, it protects it.

JH

Before we leave this tape, I'd like you to give a few little insights into your father . . . your early recollections of him. He was so many years older than you. You were kind of an afterthought.

HAZLEDINE:

Well, frankly, that's probably true. I mean my oldest sister was 22 when I was born. My youngest sister was 14 years older than I am. And, of course, my mother was 42 and my father was 50, 49. So that, consequently, when I was really aware of my father as a man, he was already 60. So, I never knew him as a young man, but still he had many of the attributes of a young man because he was quite athletic. He bowled. He was a champion bowler in town. He was one of the first tennis players in town. He promoted the game of tennis and it was his one love in sports.

JH.

I believe that he and Frank Grove were tennis

JH                   champions here in Terre Haute in his late years.

HAZLEDINE:        That's right. When dad was 65, he and Frank Grove won the city doubles championship. I think this is about right. I know that he did win the doubles championship with Frank Grove about that time.

He was very instrumental in getting the tennis courts built down at Rea Park, but one of the first tennis courts that were in town were up at the water works. Mr. Taylor, who was the manager of the Terre Haute Water Works, was also an avid tennis player; and through the company they allowed the tennis club to build three tennis courts on the north edge of the water works' property. And these were known as the Water Works courts for years and years. They were clay courts, of course, and they had a tennis club. And dad played tennis every opportunity -- Saturday afternoon and Sundays. And he never went in for what you might call tournament tennis. Tennis was always a sport for fun. And when he went to Florida in his later years, one of the things that he indulged in was he played tennis every day that he could. Really he played tennis up until the time he died at 82. So . . .

JH:                What were his other interests in his earlier years?

HAZLEDINE:       Dad also was an avid pigeon fancier.

JH:                Pigeons?

HAZLEDINE:       Pigeon. Now, he had some homing pigeons, but his main love was the pouter pigeon. Now, a pouter pigeon is a peculiar bird that when they're strutting around in front of the female, they will blow their crop up into a tremendous balloon like thing that just is almost as big as their own body. And it sticks out underneath their chin and in front of their body. And they're called pouter pigeons.

And dad had a big barn in back of the house on South Center Street, and he had a pigeon loft up there. And he raised many show quality pouter pigeons and took these pigeons to Madison Square Garden and won trophies for his pouter pigeons.

JH                Is this a sport today?

HAZLEDINE: I presume it is, but I don't know of it. I know that homing pigeons is a sport that is still very active today. Now, dad did have some pigeons of this nature, but he never really went in for that as an avid sport because you pack up a bunch of homing pigeons in crates and send them off on the railroad over to some town 200 miles away. Then somebody over there turns them all loose, and you have some kind of a race to see whose pigeon gets home first. But his main sport was in the show type pigeon.

JH: He was quite a gardener, too, wasn't he, within limits?

HAZLEDINE: Yeah. It wasn't until we moved over onto South 5th Street.

JH: And when was that?

HAZLEDINE. This was when I was 10 years old so that would have been 1918, and that's when he really began to be interested in growing roses.

JH: This was the house at 1120 South 5th.

HAZLEDINE: Eleven twenty South 5th Street -- just south of what was at that time St. Anthony's Hospital.

But he didn't really grow any other plants except roses. But he had all of the fancy varieties, the little bitty, short stubby plants that had great big blooms on them. And I remember when he built the rose bed. He dug down three feet deep, and he filled that thing full of everything -- horse manure and cow manure and good dirt. And this was a really a beautiful place to grow fancy flowers. And then back on the back of the lot as far away as he could get it, he put a tank in the ground -- oh, probably 10 gallons. And he kept a mixture of water and manure and fertilizer and old cigar butts and stumps . . . understand, cigar butts do make a good bug repellent. Nicotine dust, of course, is a thing that they still use. But (laughs) he put everything in that pot out there, and it smelled pretty rank but it sure grew flowers.

JH: Did he ride a bicycle?

HAZLEDINE: Yeah. The main transportation (laughing) back in early 1900 was either walking or riding a bicycle or riding a horse and buggy. And he did not go back and forth to work with a horse and buggy. We had a horse at the shop that they kept there to haul the wagon -- mainly to haul these big cast iron mill rolls back and forth to the various local places. But he rode a bicycle. I remember very well when I was, oh, probably five or six, I would walk up towards the direction that he always came from. He would come down 6th Street. And I'd walk up, and he would pick me up and ride me home on the handlebars. And I remember one time I got a little bit . . . started out a little too early, and I got a little too avid in my walking, and I walked clear on up to where the Department Club is right now. And I remember sitting up on that high wall that's still there, on the corner of that wall waiting for my father. Well, he happened to come . . . that time he came a slightly different route and he missed me. When he got home, mother said, "Where's Kenneth?" Well, he came back up 6th Street from where I was. And I remembered he didn't chastise me too much, but he was provoked that he had (laughs) to come back. I'd just gone too far that was all.

JH: What was your relationship with him? Was he a strict parent?

HAZLEDINE: No, dad was not what you'd call straight-laced. He was not too strict; maybe I didn't require being too strict because I never did too many things that were real bad. At least I never got caught at it. And I don't remember him as being near as strict as my mother was.

I do remember one time, however, when I was . . . I must have been three or four and if I got a little angry, I'd pound my head on the floor or pound my head against the wall. And this got to him one day; and he said, "You're not going to do that any more." And he picked me up and banged my head on the floor real hard, and I didn't do it any more!

JH: (laughs)

HAZLEDINE: But that's the only real memory I have of being severely disciplined by my father.

JH: He was quite a singer, wasn't he?

HAZLEDINE: Oh, yes, yes, he loved to sing, and he always . . . he went to church to sing. He was not a deeply religious man. He was a . . . he had a lot of respect for other people's opinions, but he did like to sing, so the place to go to sing was to go to church.

JH: But didn't he and your mother belong to an Oratorio Society?

HAZLEDINE: Yes, that's where they met. When he first arrived from England (of course, all Englishmen like to sing), he immediately hunted up some of his own countrymen who were singers, and eventually got into a group called an oratorio society, which spent their time rehearsing and singing the oratorios. Mother being a piano player and organ player was playing for this group, and that's how they met in the first place.

JH: Is there anything else that you would like to speak about concerning your father and the early business that we might have missed?

HAZLEDINE: Well, one of the little things about dad, he would appear about 4 o'clock in the afternoon from the office (the office was upstairs at this time). He'd have his coveralls on, and he'd go down to the blacksmith shop to get started working with whatever he wanted to do. And here it was 4 o'clock, pretty close to being ready for quitting time. But he (laughs) had . . . and he'd work from there on, maybe, making . . . he did not engage in the regular day-to-day blacksmith work. He left that to the blacksmith. But when he had something that he was working on, like these roses or making andirons, he'd get his work done up in the office and then he'd come back downstairs about 3:30 or 4 o'clock to do a half-day's work. And . . .

JH: You mean doing some of the things that he wanted to do.

HAZLEDINE: Well, yes. And I know that he was his most cheerful self when we weren't very busy, and he could go out in the blacksmith shop and work uninterrupted on what he wanted to do. If things were popping and

HAZLEDINE: jumping and we were really busy, why he couldn't go back in the blacksmith shop and really sink himself into the thing he loved to do. And that was to pound iron into something that was beautiful.

JH: Thank you, Kenneth Hazledine.

END OF TAPE

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